

Data Sheet

Protan GX is designed for use in fully adhered exposed applications. These systems are suitable for new build and refurbishment applications.

Protan GX Membrane

Protan GX is a membrane with a laminated polyester fleece on the reverse side and is designed for use in a fully adhered system using Protan ProBond No.1 Adhesive.

Protan GX membrane is manufactured from pliable PVC reinforced with glass fibre. The PVC contains stabilisers which make the product resistant to both high and low temperatures, UV-stable, and fire retardant.

Protan GX membrane is available in the following thicknesses and specifications:

	Protan GX 180	Protan GX 300
Thickness	1.5mm	1.5mm
Roll Length	15m	15m
Roll Width	2m	2m
Weight of PVC	1.65kg/m ²	1.65kg/m ²
Weight of Fleece	180g/m ²	300g/m ²
Weight of glass fibre core	50g/m ²	50g/m ²

Limitations

Protan GX 180 must not be adhered to bitumen based substrate. Protan GX must only be used in combination with Protan approved PU-adhesive.

Low Temperature Flexibility

Protan GX was designed in Norway for the low temperature conditions in Scandinavia during winter months. The material remains flexible at low temperatures, during installation and use, without fracturing. Bonding with Protan ProBond No.1 Adhesive is recommended in temperatures above 5°C.

Properties	Protan GX
Foldability at low temperatures - EN 495- 5:2001	≤ -30°C

Water Vapour Permeability

Protan GX membrane is a vapour permeable material. When installed this membrane provides an ideal design solution for roof constructions with limited risk of interstitial condensation.

Durability

Accelerated weathering tests and performance in service confirm that satisfactory retention of physical properties is achieved. All available evidence indicates that Protan GX membranes should have a life in excess of 30 years. Refer to BBA Certificate No. 00/3755. Protan's oldest roof is 36 years old, and continues to perform well.



Tensile Strength and Tear Resistance

Tensile and tear strength are important properties in determining the material's ability to resist different movements. Tensile and tear strength properties are shown in the table below:

Properties	Protan GX 1.5mm
Tensile strength EN 12311-2:2000(A)	≥ 650 N/50 mm
Elongation EN 12311-2:2000(A)	≥ 180%
Tear resistance EN 13210-2:2000	≥ 250 N

Puncture Resistance

Protan GX membranes are resistant to normal foot traffic during roof maintenance and inspections. On areas where frequent foot traffic is expected, for example on walkways to roof-top plant, Protan walkway membrane can be attached to the Protan GX membrane, and is available in a contrasting colours. Details of puncture resistance are shown in the following table:

Properties	Protan GX
Resistance to Puncture by Static Loading EN 12730:2001(A)	≥ 400 N
Resistance to Puncture by impact at +23°C EN 12691:2006(A)	≤ 10 mm/diam
Resistance to Puncture by impact - 10°C EN 12691:2001	≤ 15 mm/diam

Anti-Slip Surface

All Protan GX membranes have a unique anti slip surface as standard. Compared with non-textured materials this feature provides a significant safety factor when walked upon in wet weather.

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Fire Resistance

Protan GX achieves classification Broof (t1) according to EN 13501-5 on all combustible and non combustible Protan GX substrates.

When tested in accordance with BS 476-3: 2004, a system comprising of:

(i) A 18mm sloping plywood deck, one 90mm thick layer of glass tissue faced PIR insulation fixed with telescopic washers and one layer of Protan GX fully adhered to the insulation using ProBond No.1 moisture curing adhesive achieved an EXT.S.AB rating.

Colours

Protan GX		
Colour	Protan Ref.	Closest RAL No.
Dark grey	F94	7012
Light grey	F91	7040
Copper Green*	F41	6021

*subject to minimum order

Storage

Protan GX membranes must be stored dry. At the building site, it is important that rolls are stored on pallets (raised from the floor) and that they are covered with a tarpaulin.

Environment

Protan GX membrane cannot be recycled after its working life.

Solar Reflection

A relatively light coloured roofing material can reduce surface temperature during warm weather and heat gain within the interior of the building. Where air conditioning is in use cost savings may be significant.

Chemical Resistance

The chemical resistance of Protan membranes depends upon concentration, duration of contact and temperature. The table below provides a guide to the resistance of Protan GX membrane at ambient temperature, to various common substances. For further information please contact Protan (UK) Ltd.

Material	Resistance
Aluminium	Well suited
Asphalt	Not resistant
Bitumen	Not resistant
Carbon monoxide	Well suited
Carbon tetrachloride	Conditional
Caustic potash	Well suited
Common salt	Well suited
Copper & ferrous materials	Well suited
Detergents	Well suited
Diesel oil & fuel oil	Conditional
Ethyl ether	Not resistant
Fats (animal and vegetable)	Not resistant
Formaldehyde	Conditional
Iron residues	Conditional
Motor oils	Conditional
Nitric acid	Conditional
Non-aromatic mineral oils	Conditional
Oils (animal and vegetable)	Not resistant
Paraffin	Conditional
Petrol	Not resistant
Salt of aluminium	Not resistant
Salt of ammonium	Well suited
Salt of calcium	Well suited
Salt of magnesium	Well suited
Salt of potassium	Well suited
Salt of sodium	Well suited
Sea water	Well suited
Soaps	Well suited
Softeners	Not resistant
Solvent	Not resistant
Steam	Well suited
Tar	Not resistant
Turpentine oil	Not resistant
Urea	Well suited
Weed killer (aqueous)	Well suited
Wood preservative	Conditional

References

For further technical information please refer to:

- BBA Certificate 00/3755
- IAB Certificate 06/0263
- Protan ProBond No.1 Adhesive Datasheet

All of the above documents are available from Protan (UK) Ltd.